

REMARKS

I. Summary of the Examiner's Action

A. Claim Rejections

As set forth in paragraph 1 of the Office Action dated July 14, 2005 (hereinafter "the July 14 Office Action") claims 1 – 3, 7 – 9 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,687,518 to Park (hereinafter "the Park patent") in view of United States Patent No. 6,115,616 to Halperin *et al.* (hereinafter "the Halperin patent").

As set forth in paragraph 2 of the July 14 Office Action, claims 5, 6, 11, 12, 14, 15, 17, 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Park patent in view of the Halperin patent and further in view of United States Patent No. 4,740,431 to Little (hereinafter "the Little patent").

II. Applicants' Response – Claim Rejections

A. Rejection of Claims 1 – 3, 7 – 9 and 13 under 35 U.S.C. § 103(a)

Claim 1 is reproduced here with emphasis added to show the subject matter which is neither described nor suggested by the references of record:

1. A mobile station, comprising:
a communication part that comprises a controller, an RF transceiver and an antenna; and

a self-powered information entry part comprising a keypad or keypad module that is detachable from said communication part and that is coupled, whether attached or detached, through a wireless link to said communication part for conveying keystroke information from said information entry part to said communication part.

Applicants at page 3, lines 9 – 11 of the Application note that the information entry part and keypad modules of the present invention are self-powered and require no power connection to another device:

“The keypad module further includes a source for providing operating power for the keypad module, where the source includes at least one photovoltaic cell used alone or in combination with a battery.”

Applicants make clear at page 6, lines 29 – page 7, line 2 of the Application that due to the fact that the information entry module is self-powered, when used in combination with a battery, the information entry module of the present invention is capable of recharging the battery:

“An optional battery 11F can be used for powering the keypad module 11 under low light conditions. The battery 11F could be a rechargeable type that is recharged from the solar cell(s) 16.”

Thus, in the embodiments of the present invention, the information entry parts and keypad modules are self-powered by, for example, a solar cell alone or in combination with a rechargeable battery and need not be connected to another device for the purpose of being recharged.

Applicants respectfully note that the Examiner submits that the Halperin reference refers to a self-powered mode of operation at column 4, lines 13 – 18 (reproduced here):

“The keypad, physically separated from the hand set is operated analogously to conventional keyboard operation of modern cordless or cellular phones. In the first embodiment shown in FIG. 1, the keypad 16 has its own power source in the form of a battery, preferably a lithium thin film battery to minimize volume (space) occupied by the power source.”

The Examiner is mistaken. Applicants respectfully submit that the reproduced portion of the Halperin reference in no way either describes or suggests a self-powered mode of operation. Rather, the Halperin reference refers to a *battery-powered* mode of operation. Applicants note that Halperin likens the operation of the keypad 16 to the operation of conventional modern cordless or cellular telephones. Conventional modern cordless or cellular phones referred to in this portion of Halperin have to be returned to a cradle or plugged into an AC adapter in order to recharge their batteries and thus are not “self-powered”.

This follows from the meaning of “self-powered”. As set forth in the Merriam-Webster Online dictionary “self-” refers to “oneself or itself.” Accordingly, “self-powered” means powered “powered by itself”. As used by Applicants, this refers to the fact that Applicant’s “information entry part” is “powered by itself” which, in the case of Applicant’s preferred embodiment, is accomplished by a solar cell.

This provides for a simple device since the communication part to which the self-powered information entry part may be coupled need not contain circuitry either to monitor the power state of the self-powered information entry part or to recharge the self-powered information entry part.

Applicants respectfully submit that neither the Park nor Halperin references – which concern communications devices having detachable keypad modules – show any appreciation for this mode of operation. In fact, an embodiment disclosed in the Halperin at column 2, lines 61 – 63 requires that a detachable keyboard card be reattached to the handset so that a battery incorporated in the detachable keyboard can be recharged:

“A secondary battery B1 is provided on the keyboard card 16 and gets charged preferably whenever the main battery B2 of the handset gets charged.”

The fact that the battery needs to be re-charged in this way is indicative of the fact that the keyboard card 16 of Halperin is *not* self-powered. Thus, neither the Park nor the Halperin references show any appreciation for the modes of operation permitted by the self-powered information entry parts and keypad modules of Applicants' invention.

Applicants accordingly submit that claim 1 is patentable over the art of record, and therefore respectfully request that its rejection be withdrawn. Independent claims 7 and 13 are patentable for reasons similar to those submitted with respect to claim 1 and for reasons attributable to their unique subject matter. Therefore, Applicants respectfully

request that the rejection of claims 7 and 13 be withdrawn as well. Finally, Applicants request that the rejection of dependent claims 2, 3, 8 and 9 be withdrawn since the claims depend from allowable base claims.

B. Rejection of Claims 5, 6, 11, 12, 14, 15, 17, 19 and 20 under 35 U.S.C. § 103(a)

Regarding the rejection of independent claims 5, 6, 11, 12, 14, 15, 17, 19 and 20, Applicants respectfully submit that the Examiner has ignored Applicants' arguments as set forth in their April 25, 2005 Response. In particular, Applicants remind the Examiner of his responsibility as established by MPEP 707.07(f):

“Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it”

Applicants respectfully note that the Examiner did not answer Applicants' arguments; rather the Examiner merely relied on a boilerplate formulation at page 4, lines 14 – 17 of the July 14 Office Action:

“Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the Lithium thin film solar cell of Little to Halperin in order to have a simple, low cost way of providing power to a electronic device.”

The problem with Examiner's statement is that it does not answer Applicants' detailed arguments as set forth at pages 9 – 10 of their April 25, 2005 Response as required by

MPEP 707.07(f), which were directed at exactly the type of boilerplate rejection one might expect.

Applicants indicated in their April 25, 2005 Response that there were at least two reasons why it would be impermissible to combine the Little and Halperin patents. First, the Halperin patent teaches away from Applicants' invention since instead of providing a self-powered detachable keyboard alternative to redress the need to recharge batteries incorporated in its battery-powered embodiment, the Halperin patent suggests a passively-powered alternative:

To avoid the need for a secondary battery, as well as the need for the transmitter/receiver E1-R2 combination, one can also use a wired communication between the keyboard card 16 and the main body 10.
[Halperin patent, Column 3, lines 19 – 22]

* * *

One of the features of this alternative implementation is that the keyboard is passive; it does not have a power source or battery and no recharging is needed. [Halperin patent, Column 4, lines 10 – 12]

Thus, one of ordinary skill in the art having the Halperin disclosure in mind would not be motivated to combine the Little and Halperin references since for purposes of simplification the Halperin reference teaches to delete the battery of the detachable keyboard and adopt a passive mode of operation. Notably, in the July 14 Office Action the Examiner did not answer this first argument.

Second, the detachable keyboard embodiment of Halperin incorporating a battery apparently is charged when connected to the handset. Combining the disclosure of the Little reference with this portion of the Halperin disclosure would be impermissible for being both a hindsight combination made using the teaching of Applicants' own disclosure and for requiring a redesign of the Halperin reference in violation of MPEP § 2143.01 (proposed modification cannot change the principle of operation of a reference).

It would be impermissible hindsight because only Applicants' own disclosure makes the combination; the Halperin reference teaches away from it. It would require an impermissible change to the principle of operation because the battery incorporated in the detachable keyboard of the Halperin reference is recharged by an external source – not by an internal source. Again, in the July 14 Office Action, the Examiner did not answer this second argument.

Applicants therefore respectfully submit that independent claims 15 and 17 are patentable over the art of record and respectfully request that their rejection be withdrawn. Regarding dependent claims 5, 6, 11, 12, 14, 19 and 20, Applicants respectfully request that these claims are allowable as depending from allowable base claims.

III. Conclusion

Applicants submit that in light of the foregoing remarks the application is now in condition for allowance. Applicants therefore respectfully request that the outstanding rejections be withdrawn and that the case be passed to issuance.

Respectfully submitted,

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Date

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